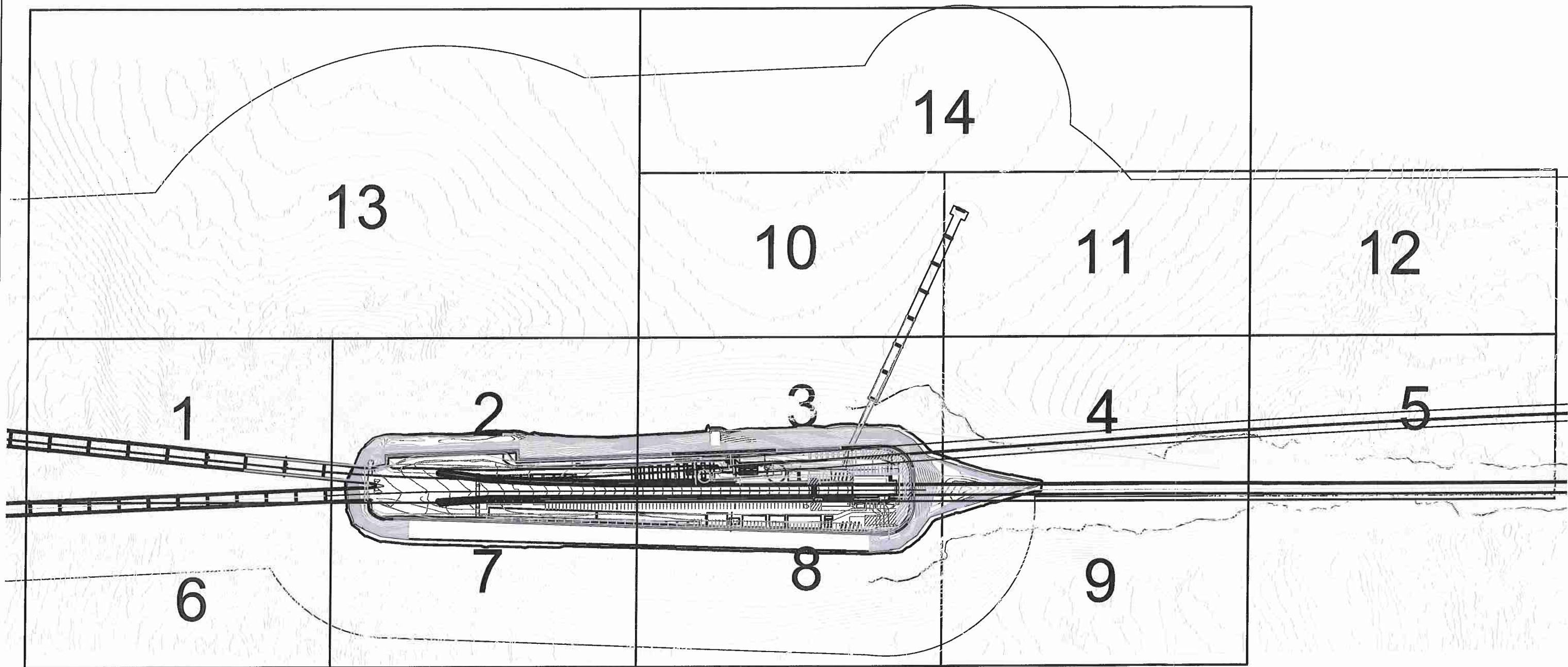




JOB NO. 375986
FILENAME CV-1110-PL1_11X17-SHEETS

CIVIL SITE PLAN PACKAGE	
SUBMISSION TYPE	
PERMIT APPLICATION	

A	10-29-16	JRH	RSL	FINAL DESIGN DELIVERABLE	
NO.	DATE	BY	APP.	DESCRIPTION	




COMMONWEALTH OF VIRGINIA
CHESAPEAKE BAY BRIDGE AND TUNNEL DISTRICT
CAPE CHARLES, VIRGINIA 23310

 PARALLEL THIMBLE SHOAL TUNNEL
TO
LUCIUS J. KELLAM, JR. BRIDGE-TUNNEL

PORTAL ISLAND NO. 1 PERMIT LEVEL DESIGN IMPACT AREA - INDEX SHEET					
DRAWN BY:	JRH	SCALE:	1" = 250'	DWG. NO.	CV-1110-104
CHECKED BY:	RSL	DATE:	DECEMBER 2016	SHEET	1 OF 32

MATCHLINE - SEE PLATE 10

- PROPOSED ENGINEERED BERM UNDER EXISTING ARMOR STONES
- BELOW MHW: 21,580 SF (0.50 ACRES)
 - BELOW MLW: 16,415 SF (0.38 ACRES)

- PROPOSED ENGINEERED BERM UNDER EXISTING ARMOR STONES
- ABOVE MHW: 21,980 SF (0.5 ACRES)
 - ABOVE MLW: 30,273 SF (0.69 ACRES)

EXISTING 4" GARAGE DRAIN PIPE OUTFALL TO BE REPAIRED

EXISTING 6" STORM DRAIN PIPE OUTFALL TO BE REPAIRED

EXISTING 8" PUMP DISCHARGE PIPE OUTFALL TO BE REPAIRED

PROPOSED REPAIR OF EXISTING FISHING PIER ABUTMENT

PROPOSED REPLACEMENT OF EXISTING FISHING PIER SUPERSTRUCTURE AND REPAIR OF PILES AS NEEDED, UP TO 32 PILES (512 SF, 0.01 ACRES)

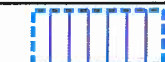
PROPOSED 2" POTABLE WATER LINE

EXISTING SPLASH WALL TO BE REMOVED AND RESET OR REPLACED (816 SF)

MATCHLINE - SEE PLATE 8

LEGEND - PERMANENT IMPACTS

- PROPOSED ENGINEERED BERM ON NATURAL BOTTOM (CONVERSION) BELOW MHW 296,208 SF (6.8 ACRES)
- PROPOSED ENGINEERED BERM UNDER EXISTING ARMOR STONES (CONVERSION) BELOW MHW 60,942 SF (1.4 ACRES)



- PROPOSED ENGINEERED BERM UNDER EXISTING ARMOR STONES (LOSS) ABOVE MHW 21,980 SF (0.5 ACRES)

MHW = 2.92' CBBT DATUM
MLW = 0.37' CBBT DATUM
NOTE: MHW/MLW SHOWN AS APPROXIMATE

MATCHLINE - SEE PLATE 2

MATCHLINE - SEE PLATE 4

PROPOSED DOCKING AREA 179,094 SF (4.11 ACRES), INCLUDES MAX. 45, 12"-36" DIA. STEEL SAND FILLED PILES FOR 25,000 SF DOCK

PROPOSED MOORING AREA 2,597,690 SF (59.63 ACRES), INCLUDES 15, 12"-18" DIA. STEEL SAND FILLED PILES 27 SF (0.01 ACRES), AND 15, 18" MOORING PILE AND/OR ANCHORS

EXISTING SPLASH WALL TO BE REMOVED AND RESET OR REPLACED (1,040 SF)

JET GROUT ZONE

PROPOSED TBM HEADWALL - START OF MACHINE TUNNELING

PROPOSED TUNNEL BARRIER ABOVE TUNNEL PORTAL (STA. 18+50.77)

CHESAPEAKE BAY



EXISTING ARMOR STONE ABOVE MHW

M.H.W.
M.L.W.

PROPOSED GENERATOR FUEL TANK 210 SF (0.01 ACRES)

PROPOSED VENTILATION BUILDING 6,262 SF (0.14 ACRES)

PROPOSED FIRE HYDRANT (TYP.) THROUGHOUT THE ISLAND 43 SF (0.01 ACRES)

PROPOSED WATER PUMPING SYSTEM

PROPOSED WORKSHOP

PROPOSED PARKING AREA

PROPOSED SHEET PILES

EXISTING ARMOR STONE TO BE REESTABLISHED WITH ENGINEERED BERM ABOVE MHW

LEGEND - TEMPORARY IMPACTS

- PROPOSED MOORING AREA 2,597,690 SF (59.63 ACRES)
- PROPOSED DOCKING AREA 179,094 (4.11 ACRES)



- PROPOSED MOVEABLE FORM AND/OR SHEET PILE (2,662 LF)



- PROPOSED DREDGING FOOTPRINT 163,080 SF (3.74 ACRES) 74,545 CY

CIVIL SITE PLAN PACKAGE

SUBMISSION TYPE

PERMIT APPLICATION

NO.	DATE	BY	APP.	DESCRIPTION
A	10-29-16	JRH	RSL	FINAL DESIGN DELIVERABLE

CHESAPEAKE TUNNEL JV

M
MOTT
MACDONALD

COMMONWEALTH OF VIRGINIA
CHESAPEAKE BAY BRIDGE AND TUNNEL DISTRICT
CAPE CHARLES, VIRGINIA 23310



PARALLEL THIMBLE SHOAL TUNNEL
TO
LUCIUS J. KELLAM, JR. BRIDGE-TUNNEL

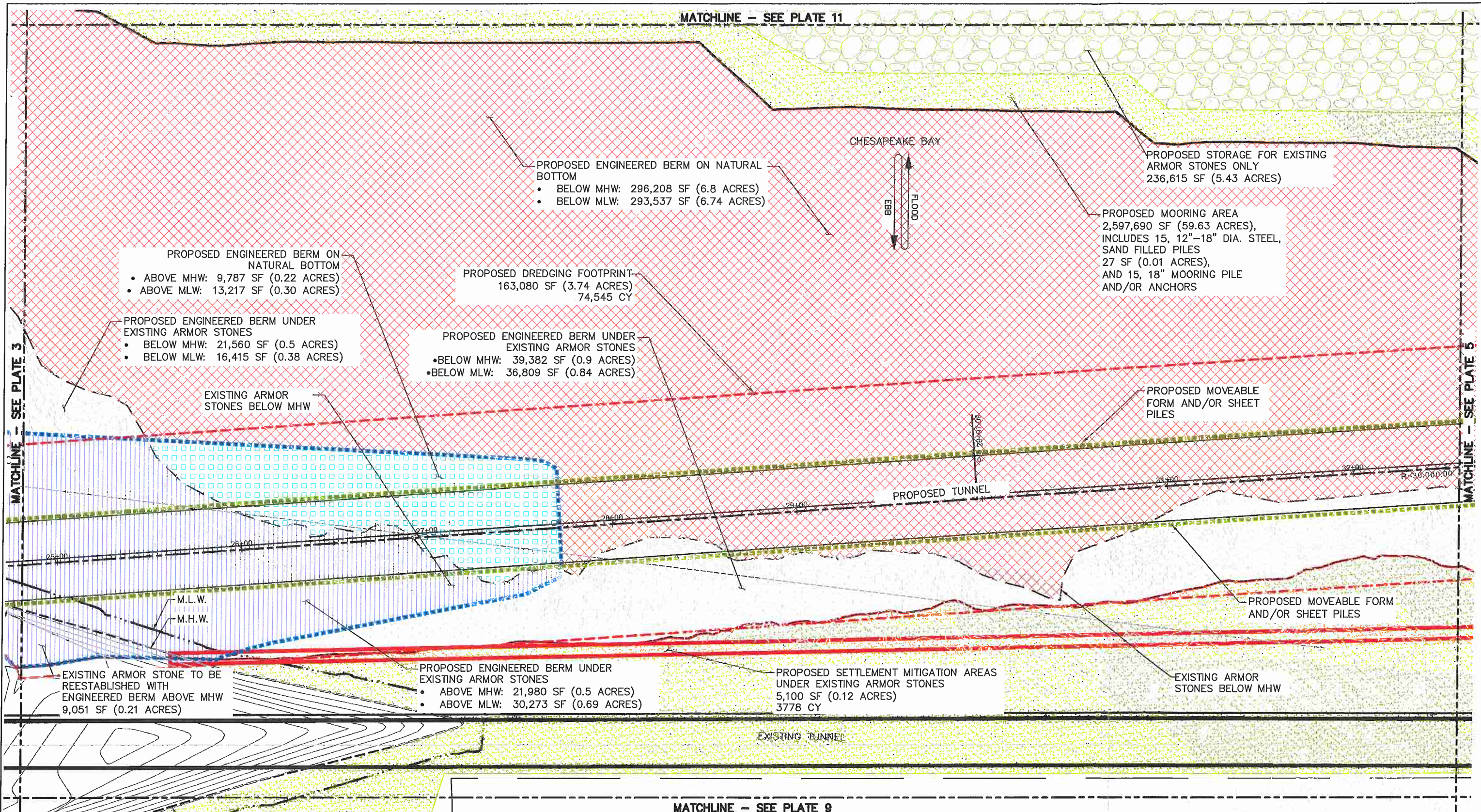
PORTAL ISLAND NO. 1
PERMIT LEVEL DESIGN
IMPACT AREA PLAN - PLATE 3

DRAWN BY:	JRH	SCALE:	1" = 50'	DWG. NO.	CV-1110-104
CHECKED BY:	RSJ	DATE:	DECEMBER 2016	SHEET	5 OF 32

MATCHLINE - SEE PLATE 11

MATCHLINE - SEE PLATE 3

MATCHLINE - SEE PLATE 5



LEGEND - TEMPORARY IMPACTS			
	PROPOSED MOORING AREA 2,597,690 SF (59.63 ACRES)		PROPOSED ARMOR STONE STORAGE 236,615 SF (5.43 ACRES)
	PROPOSED MOVEABLE FORM AND/OR SHEET PILE (2,662 LF)		PROPOSED SETTLEMENT MITIGATION AREA UNDER EXISTING ARMOR STONES 5,100 SF (0.12 ACRES)

LEGEND - PERMANENT IMPACTS			
	PROPOSED ENGINEERED BERM ON NATURAL BOTTOM (CONVERSION) BELOW MHW 296,208 SF (6.8 ACRES)		PROPOSED ENGINEERED BERM ON NATURAL BOTTOM (LOSS) ABOVE MHW 9,787 SF (0.22 ACRES)
	PROPOSED ENGINEERED BERM UNDER EXISTING ARMOR STONES (CONVERSION) BELOW MHW 60,942 SF (1.4 ACRES)		PROPOSED ENGINEERED BERM UNDER EXISTING ARMOR STONES (LOSS) ABOVE MHW 21,980 SF (0.5 ACRES)

MHW = 2.92' CBBT DATUM
MLW = 0.37' CBBT DATUM
NOTE: MHW/MLW SHOWN AS APPROXIMATE

CIVIL SITE PLAN PACKAGE		CHESAPEAKE TUNNEL JV		COMMONWEALTH OF VIRGINIA CHESAPEAKE BAY BRIDGE AND TUNNEL DISTRICT CAPE CHARLES, VIRGINIA 23310		PORTAL ISLAND NO. 1 PERMIT LEVEL DESIGN IMPACT AREA PLAN - PLATE 4	
SUBMISSION TYPE		MOTT MACDONALD		PARALLEL THIMBLE SHOAL TUNNEL TO LUCIUS J. KELLAM, JR. BRIDGE-TUNNEL		DRAWN BY: JRH CHECKED BY: RSJ	
PERMIT APPLICATION		NO. DATE BY APP. DESCRIPTION		SCALE: 1" = 50'		DWG. NO. CV-1110-104 SHEET 6 OF 32	
		A 10-29-16 JRH RSL FINAL DESIGN DELIVERABLE		DATE: DECEMBER 2016			

MATCHLINE - SEE PLATE 25

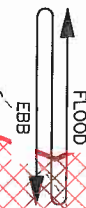
LIMIT OF
DISTURBANCE -
PORTAL ISLAND
NO. 2
4,009,514 SF
(92.1 ACRES)

PROPOSED MOORING AREA
2,786,583 SF (63.97 ACRES)
INCLUDES 15, 12-18" DIA.
SAND FILLED, STEEL PILES
27 SF (0.01 ACRES),
AND 15, 18" MOORING PILES
AND/OR ANCHORS

PROPOSED STORAGE AREA FOR
EXISTING ARMOR STONES ONLY
317,424 SF (7.29 ACRES)

PROPOSED DREDGING
FOOTPRINT
186,648 SF (4.28 ACRES),
61,570 CY

CHESAPEAKE BAY



JET GROUTING FOR TUNNEL
(ORGANICS REMOVAL)
UNDER EXISTING ARMOR
STONES
8,960 SF (0.21 ACRES)

PROPOSED MOVEABLE
FORM AND/OR SHEET
PILE

PROPOSED ENGINEERED BERM ON NATURAL
BOTTOM
• BELOW MHW 335,194 SF (7.7 ACRES)
• BELOW MLW 331,694 SF (7.61 ACRES)

PROPOSED MOVEABLE
FORM AND/OR SHEET
PILE

PROPOSED SETTLEMENT MITIGATION AREA
UNDER EXISTING ARMOR STONES
5,100 SF (0.12 ACRES)
3778 CY

PROPOSED ENGINEERED BERM UNDER
EXISTING ARMOR STONES
• BELOW MHW: 12,850 SF (0.3 ACRES)

850' ± (NAVIGATION CHANNEL)

400' ± (AUXILIARY CHANNEL)

540' ± (NAVIGATION CHANNEL)
90' ± (AUXILIARY CHANNEL)

EXISTING TUNNEL

LEGEND - TEMPORARY IMPACTS

PROPOSED MOORING AREA
2,786,583 SF (63.97 ACRES)

PROPOSED MOVEABLE FORM AND/OR
SHEET PILE (2,861 LF)

PROPOSED DREDGING FOOTPRINT
186,648 SF (4.28 ACRES) 61,750 CY

PROPOSED SETTLEMENT MITIGATION
AREA UNDER EXISTING ARMOR STONES
5,100 SF (0.12 ACRES)

JET GROUTING FOR TUNNEL (ORGANICS
REMOVAL) UNDER EXISTING ARMOR
STONES 8,960 SF (0.21 ACRES)

LIMIT OF DISTURBANCE - PORTAL
ISLAND NO. 2
4,009,514 SF (92.1 ACRES)

LEGEND - PERMANENT IMPACTS

PROPOSED ENGINEERED BERM ON NATURAL
BOTTOM (CONVERSION) BELOW MHW
335,194 SF (7.7 ACRES)

PROPOSED ENGINEERED BERM UNDER EXISTING
ARMOR STONES (CONVERSION) BELOW MHW
50,050 SF (1.15 ACRES)

MHW = 2.92' CBBT DATUM
MLW = 0.37' CBBT DATUM
NOTE: MHW/MLW SHOWN AS
APPROXIMATE

CIVIL SITE PLAN PACKAGE

SUBMISSION TYPE

PERMIT
APPLICATION

CHESAPEAKE TUNNEL JV

M
MOTT
MACDONALD

COMMONWEALTH OF VIRGINIA

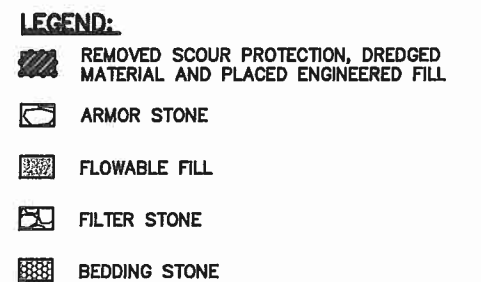
CHESAPEAKE BAY BRIDGE AND TUNNEL DISTRICT
CAPE CHARLES, VIRGINIA 23310

PARALLEL THIMBLE SHOAL TUNNEL
TO
LUCIUS J. KELLAM, JR. BRIDGE-TUNNEL

PORTAL ISLAND NO. 2
PERMIT LEVEL DESIGN
IMPACT AREA - INDEX PLATE 16

DRAWN BY:	JRH	SCALE:	1" = 50'	DWG. NO.	CV-1110-104
CHECKED BY:	RSL	DATE:	DECEMBER 2016	SHEET	18 OF 32

A	10-29-16	JRH	RSL	FINAL DESIGN DELIVERABLE
NO.	DATE	BY	APP.	DESCRIPTION



JOB NO. 375966 FILENAME CV-1110-PL1_11X17-SHEET5	CIVIL SITE PLAN PACKAGE								COMMONWEALTH OF VIRGINIA CHESAPEAKE BAY BRIDGE AND TUNNEL DISTRICT CAPE CHARLES, VIRGINIA 23310		PORTAL ISLAND NO. 1 PERMIT LEVEL DESIGN IMPACT AREA PLAN - PLATE 15			
	SUBMISSION TYPE										DRAWN BY: FP SCALE: 1" = 30' DWG. NO. CV-1110-104			
	PERMIT APPLICATION								 PARALLEL THIMBLE SHOAL TUNNEL TO LUCIUS J. KELLAM, JR. BRIDGE-TUNNEL		CHECKED BY: DG DATE: DECEMBER 2016 SHEET 17 OF 32			
	A	10-29-16	JRH	RSL	FINAL DESIGN DELIVERABLE									
	NO.	DATE	BY	APP.	DESCRIPTION									